Systems of Linear Equations
2x2
No Solutions

$$\begin{bmatrix} \text{MATH by Wilson} \\ \text{Your Personal Mathematics Trainer} \\ \text{MathByWilson.com} \end{bmatrix}$$

System: 2x2

$$3x + 2y = 4$$
$$6x + 4y = 6$$
$$(x, y) : Solution$$

Matrix Method:

$$3x_1 + 2x_2 = 4$$
$$6x_1 + 4x_2 = 6$$

$$\begin{array}{cc} x & y \end{array}$$
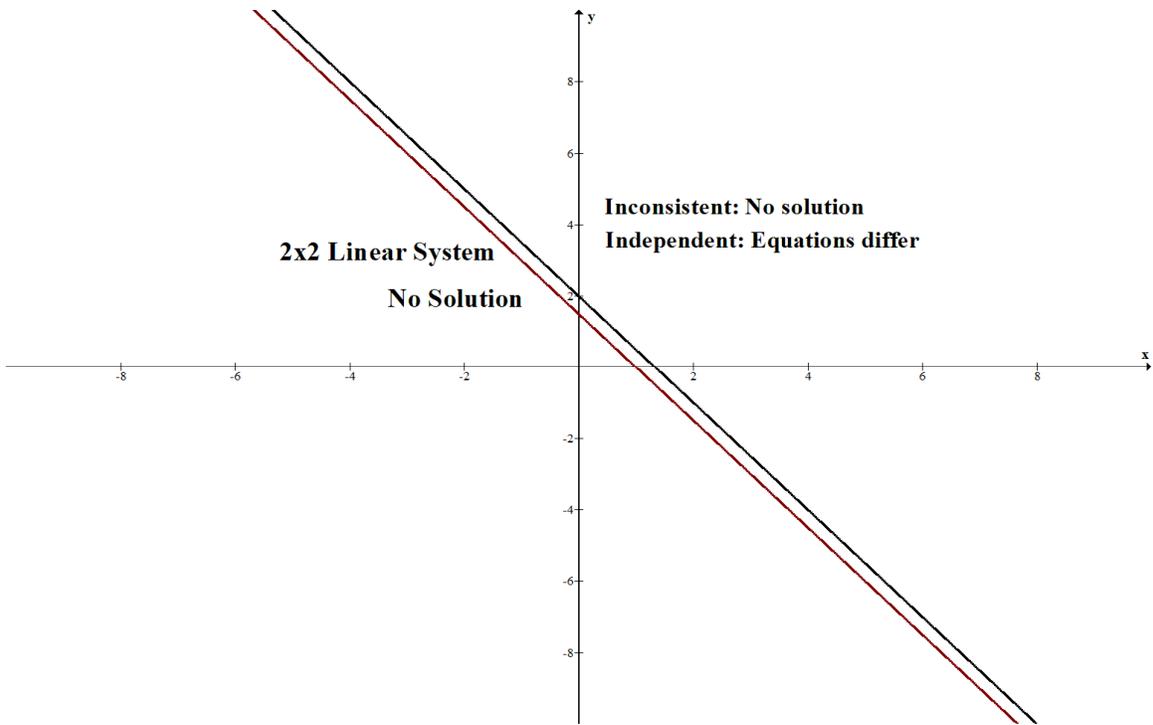
$$\left[\begin{array}{cc|c} 3 & 2 & 4 \\ 6 & 4 & 6 \end{array}\right] \qquad \text{Goal:} \left[\begin{array}{cc|c} 1 & 0 & x_1 \ sol \\ 0 & 1 & x_2 \ sol \end{array}\right]$$

$$\frac{1}{3} * R_1 \to R_1 : \left[\begin{array}{cc|c} 1 & \frac{2}{3} & \frac{4}{3} \\ 6 & 4 & 6 \end{array}\right]$$

$$-6 * R_1 + R_2 \to R_2 : \left[\begin{array}{cc|c} 1 & \frac{2}{3} & \frac{4}{3} \\ 0 & 0 & -2 \end{array}\right]$$

Solution : No solutions since $0 \neq -2$

Graphs below:

2x2 Linear System

No Solution

Inconsistent: No solution

Independent: Equations differ

```
ERROR: undefined
OFFENDING COMMAND:

STACK:
```